

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/091,975	AERT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tatyana Zalukaeva	1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/07/2004.
2. ☒ The allowed claim(s) is/are 1-8 and 13-20.
3. ☒ The drawings filed on 06 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

Tatyana Zalukaeva  
Primary Examiner  
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**EXAMINER'S AMENDMENT/COMMENT/REASONS FOR ALLOWANCE**

***Examiner's Comment***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/07/2004 has been entered.

***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. J. Guy on April 22, 2004.

The application has been amended as follows:

In claim 13 delete "." At the end of claims, and after the words "solid contents of less than 30% by weight" insert -----and measuring a particle size.-----

***Allowable Claims***

3. Claims 1-8, 13-20 are allowable over the prior art of record.

***Reasons for Allowance***

1. The following is an examiner's statement of reasons for allowance:

Polymerization of monomers in the presence of cyclodextrin is known in the art. Thus EP'675 discloses emulsion and solution free radical polymerization of ethylenic monomers in the presence of cyclodextrin or cyclodextrin derivatives. A free radical initiator preferred is ammonium persulfate (page 5, lines 5-10). The method is performed without the addition of a surfactant (page 6, lines 16, 17). The solid contents are below 30%w/w.

Ritter et al (Polymer, 40 (1999), 6673-77) discloses suspension or emulsion polymerization of **butyl methacrylate (BMA)** in the presence of  **$\beta$ -cyclodextrin ( $\beta$ -CD)** in the presence of **free radical persulfate initiator**. Batch emulsion polymerization of BMA was carried out.

Storsberg et al (Macromol. Rapid communications, 2000, 21 1342-1346) discloses polymerization of methyl Methacrylate or styrene in the presence of cyclodextrins under ATRP conditions in homogeneous aqueous solution. CD complexed initiator was added to CD complexed monomer in different molar ratios (page 1343, right column).

Bernhardt et al (Macromolecules, 2001, 34, 1647-1649), discloses aqueous free radical polymerization of various alkyl and cycloalkyl acrylates in the presence of methylated cyclodextrin.

However, in all the closest prior art references the complex of cyclodextrin and monomer is formed, and then polymerization is initiated. Contrary to these processes

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the instant claims call for mixing the initiator with cyclodextrin, and only after this adding a cyclodextrin free monomer in a semi-batch manner. Applicants have shown on this record that such order of performing operations (adding components) is critical since when all monomer to be used or a large fraction thereof added semi-continuously to the mixture of CD and initiator, this gives a high initial CD/monomer ratio, which enables a fast complexation. These complexes might form aggregates, which can become polymerization sites or loci. Furthermore, no or hardly any monomer droplets are present and can approach the micelles formed from the CD-monomer complexes. Whereas in the absence of CD only homogeneous nucleation could occur, micellar nucleation also becomes important now. CD, in all steps of the preparation method, clearly contributes to an improvement of the colloidal stability of the particles: formation of stable micelles and micellar nucleation attributes to a fast nucleation and to formation of stable colloidal particles with a narrow particle size distribution. Therefore, due to a significant amendment to claims that recites the prior formation of the initiator/CD mixture to which the CD free monomer is semi-continuously added, the instant claims are found non-obvious and therefore, allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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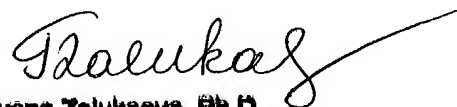
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva  
Primary Examiner  
Art Unit 1713

April 23, 2004

  
**Tatyana Zalukaeva, Ph.D.**  
**Primary Examiner**  
**Art Unit 1713**